

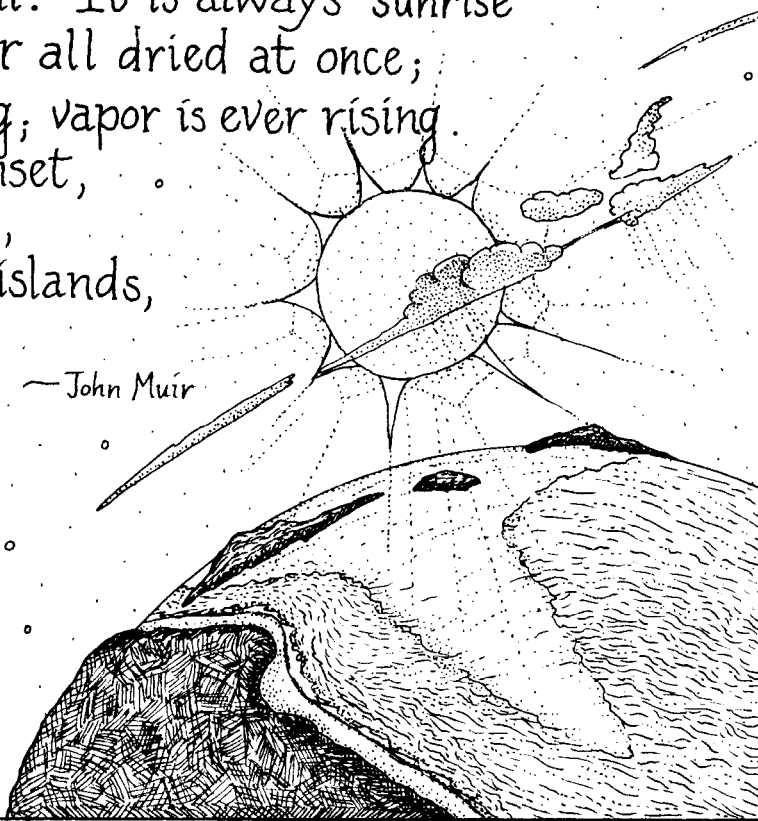
# Growing WILD

Winter 1990



This Grand Show is eternal. It is always sunrise  
somewhere ; the dew is never all dried at once ;  
a shower is forever falling ; vapor is ever rising .  
Eternal sunrise, eternal sunset ,  
eternal dawn and gloaming ,  
on sea and continents and islands ,  
each in its turn ,  
as the round earth rolls .

— John Muir



*For Earth Day 1990,*

## **CELEBRATE THE FUTURE!!!**

**THIS IS A NEW BEGINNING!** We're already seeing the signs of renewed commitment to the environment throughout Utah, throughout the nation and throughout the world. It was 20 years ago that the first Earth Day signaled a new era of environmental concern. At that time 20 million people pledged to support a nation eager to protect its environment. From that groundswell of concern, the United States passed the Clean Air Act and the Clean Water Act, created the Environmental Protection Agency and supported billions of dollars' worth of cleanup campaigns.

*continued on page 2*

**WHERE ARE WE NOW?** The environmental concerns we now face, such as the "greenhouse" effect, ozone depletion, toxic wastes, rainforest destruction and ocean pollution, are far more global in nature than they were twenty years ago. So, for this year's Earth Day, April 22, it is projected that as many as 100 million people will participate worldwide! According to *Time* magazine (December 18, 1989), citizens in communities throughout the world are organizing events from parades, proclamations and protests to teach-ins, trash-ins and eco-fairs.

Dennis Hayes, who organized the first Earth Day and who is chair of an international coordinating committee for Earth Day 1990, explains that the thrust of Earth Day 1990 is to pledge a diversified world community to work for a brighter future environment. From Earth Day, he would like to see a practical, working environmental agenda for the next ten years emerge as evidence of a commitment to a healthy planet. (See the "Goals of Earth Day 1990" below.)

**WHAT CAN YOU DO?** You can offer your students the opportunity to make a long-term commitment to caring for a healthy planet. Whatever you do on a local level-- whether it's simply increasing a child's awareness of the wondrous world around us or tackling the major environmental issues at the legislative level, you support global health!

**The ideas for Earth Day activities are endless -- so we have designed this issue of *Growing WILD* to focus on Earth Day 1990. Remember, for Earth Day -- and everyday, YOU are the future!**

### GOALS OF EARTH DAY 1990

- a worldwide ban on chlorofluorocarbons to be fully implemented within 5 years
- to slow the rate of global warming through sustained reduction in carbon dioxide emissions
- the preservation of old-growth forests
- ban on packaging materials that are not recyclable or biodegradable
- a swift transition to renewable energy resources
- an increased residential and industrial energy efficiency
- the minimization of hazardous wastes
- increasing protection of endangered species and habitats
- the development of an international agency with the authority to safeguard the atmosphere, oceans and other global commons from international threats
- a new sense of responsibility for the protection of the planet by individuals, communities and nations

**We would like to hear how you plan to celebrate Earth Day 1990!!  
Be sure to let us know how Project WILD activities fit into your plans.**

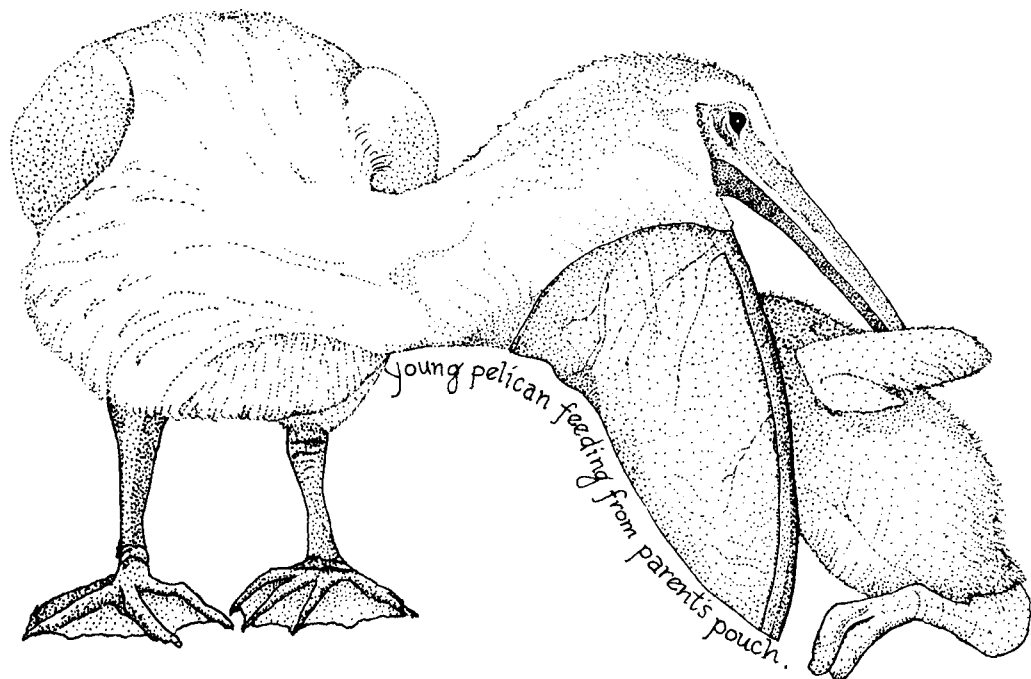
# NATURE'S CALL CELEBRATES UTAH'S "INCREDIBLE CRITTERS"

Just imagine this! Who can be a Project WILD facilitator, a Ranger-Naturalist in Yellowstone National Park, earn a Master's Degree in environmental education at Tufts University, become a certified teacher in Utah, write ARE YOU ME? for the Aquatic WILD Guide, AND create Utah's incredible kids' newsletter -- just in time for Earth Day celebrations???

**ELLEN PETRICK-UNDERWOOD CAN!!** After having facilitated for Project WILD since 1986, Ellen is now working with Utah's Division of Wildlife Resources during the winter season -- or as long as we can keep her before she has to return to Yellowstone to resume her duties at Grant Village. Ellen is known to many of you who have gone through workshops with her. Now we're able to benefit not just from her excellent teaching skills but from her many other talents as well, such as writing and illustrating.

This issue of *Nature's Call*, Utah's Project WILD newsletter for kids, was created by Ellen to focus on some of Utah's unique wildlife. Designed to be available for teachers during Earth Day activities, "Incredible Critters" may be used independently or with selected Project WILD activities. It may also be supplemented with information found in the "Utah Wildlife Photo Series #1," which has been produced by Project WILD's Coordinators, Daphne Sewing and Brenda Schussman. (See article on next page for details.)

Only one copy of *Nature's Call* is mailed to each Project WILD teacher because of budget limitations, but it is designed to be copied for classroom use. For this issue, we do have enough extra copies to provide class quantities for approximately 40 classrooms. Since we will distribute these on a first come-first serve basis, please let us know as soon as possible if you would like a classroom set (530-1269).





## Utah Wildlife Photo Series Now Available!

Yes, the "Utah Wildlife Photo Series #1" is now available! In fact, complimentary sets have already been delivered to each Utah school for classroom use, thanks to funding provided by the Intermountain GMC Dealers. Additional sets are available at Division of Wildlife Resources offices and at Project WILD workshops for a donation of \$10 per set.

Each set contains sixteen 8"x10" photographs of Utah animals with the natural history information about each animal printed on the back side. (See "Desert Bighorn Sheep" on the next page of *Growing WILD* for an example of the natural history information found on each card.) Animals included in this series are: black bear, white pelican, barn owl, beaver, bobcat, desert bighorn sheep, Great Basin rattlesnake, marmot, desert tortoise, mountain bluebird, peregrine falcon, elk, mule deer, moose, tiger salamander and yellow crab spider.

Created by Project WILD Coordinators Daphne Sewing and Brenda Schussman, with assistance from the Outdoor Resources Foundation, the "Utah Wildlife Photo Series" is designed to provide wildlife education to the general public and offer quality photographs suitable for framing or use on classroom bulletin boards. These sets also provide supplementary wildlife education materials to teachers and provide support materials for several Project WILD activities. You may contact the Project WILD office (530-1269) for a list of Project WILD activities from the elementary guide which may be used with each card in the series.

Remember, this issue of *Nature's Call* is based on information taken from the wildlife photo series. If you wish to read more about the animals found in "Incredible Critters," you may want to check your school's media center for a complete set. To obtain your own set, contact regional Division of Wildlife Resources offices.

# From Utah Wildlife Phot Series #1

## Desert Bighorn Sheep (*Ovis canadensis nelsoni*)

Photograph © Lynn Chamberlain

**Classification** Mammal

**Food Habits** Herbivore

**Habitat** Rocky, steep, high terrain of the canyon country found in the warmer, desert regions of the state

**Size** Length: 5 feet  
Height: 2½- 3¼ feet (at shoulder)  
Weight: Male 160-200 pounds  
Female 95-120 pounds

**Life Span** 14 years average

### Notable Features

The most conspicuous feature of the desert bighorn sheep is the large brown horns. Both the rams (males) and the ewes (females) have horns, though the horns of the ram are much bigger and more curved. Each horn is in a "C" shape known as a "curl." The horns are permanent and consist of a sheath of keratin (a hard protein also found in fingernails and hair) covering a bony core. They stop growing in the rutting (breeding) season, at which time a ring is formed in the horn, leaving a permanent record of age. The bony core is honeycombed with air chambers which reduce the weight of the horns. During the rutting season in July and August, dominance among the rams is established in contests in which two rams batter each other with their horns and foreheads. It is estimated they meet head-on at a combined speed of about 30 mph. A buttressed skull structure and a thick, powerful neck enable them to withstand the terrific force of the collisions. The winner, or dominant ram, may be challenged repeatedly by other rams as he guards his ewes.

Bighorn sheep are well suited to survive in a rocky environment. They are superb climbers; their hooves have sharp outer edges that grip well and large, rubbery soles that provide traction on smooth rock.

### Habitat and Habits

Typical desert bighorn terrain is rough, rocky and steep, broken up by canyons and washes. Desert bighorn live in the warmer desert regions of the state where there is little annual precipitation. Another subspecies, the Rocky Mountain bighorn, can be found in the northern mountains of Utah. Ability to escape predators is essential for bighorn sheep. Therefore, it is necessary for their habitat to include steep hillsides and open areas. They also require access to water sources and overhangs or shallow caves. The latter serve as shelter from inclement weather and provide

shade and protection from predators. It is almost impossible for a predator to surprise a bighorn in the high open country, as the sheep are able to detect moving objects 5 miles away.

Desert bighorn are opportunistic eaters, taking advantage of whatever is available. Food habit studies in southeast Utah have shown that blackbrush, singleleaf ash, Mormon tea, Indian ricegrass and grama grass are important diet items during different seasons. Green forage is especially important for the ewes when lambs are born.

Water is the greatest limiting factor for the desert bighorn. Although rams may go for 5 to 7 days without water, ewes and lambs come to water holes almost daily during the hot, dry summer months. During the summer months, desert bighorn are vulnerable to predation by mountain lions near water holes.

### Management and Conservation

There has been an overall decline in bighorn numbers since the 1880's due to a number of factors: the competition with domestic livestock for limited range; diseases transmitted by domestic sheep; heavy poaching; and habitat loss associated with human settlement of the area. Management strategies have been implemented to maintain or enhance desert bighorn populations. Transplants have been highly successful in some areas. Aggressive programs to stop poaching have been effective, and hunting is strictly regulated. In Utah, besides the usual limited number of permits, a special permit for a choice ram is auctioned to the highest bidder. The monies earned fund bighorn programs, such as habitat improvement projects. These include building special water holes, called "guzzlers," and maintaining optimum range conditions to decrease competition with other hooved mammals for food, water and space.



Distribution Map

## Perfect Earth Day Projects

Get involved with an Earth Day project in your local area! We've compiled a list of projects that you and your students, scout group, or any youth group can undertake while providing valuable assistance to the Division of Wildlife Resources. Although these projects are listed by region, several can be done anywhere in the state; these projects are marked by an asterisk (\*). **Working for a healthier planet can begin right in your own backyard!**

### Northern Region

Contact Bruce Andersen or Carolie Parker, Division of Wildlife Resources, at 479-5146, for more information.

#### Plantings

Planting trees; planting browse and cover for wildlife. Planting projects available in every county in the region; early March through April, depending on conditions.

#### Clean-Up and Area Improvements

Assist in improving popular local fishing sites, build fence styles, remove litter, put up signs and help maintain through the summer. Locations include Holmes Creek Reservoir, Steed Pond, 21st Street Pond, Cutler Reservoir-Benson Marina, West Kaysville waterfowl access, fishing access at Henefer and others.

#### Wood Duck Boxes

Construct wood duck boxes or place boxes along Bear River in Box Elder County; can be done by groups or individuals.

#### Clean Up Old Fencing

Help prevent big game injuries in barbed wire by picking up old fencing on Wildlife Management Areas (WMAs). Locations include Middle Fork WMA, Richmond WMA, Perry-Willard Face and Hardware Ranch.

#### Shrub Transplants

Help transplant shrubs on DWR land near Brigham City; project will occur on two Saturdays to be announced in late March or April; upper grade levels preferred. Contact John Fairchild, DWR, 538-4766, or contact those listed above.

### Northeastern Region

Contact Ron Stewart, Division of Wildlife Resources, at 435 789-3103, for more information.

#### \*Adopt-An-Otter

Raise "otter dollars" to assist in the transplant of river otters into the Green River. For your class or group, DWR will make available a videotape detailing the life history of the river otter and provide information on "your" otter.

#### Habitat Improvement Projects

Help clean up, re-seed and improve habitat areas; several areas are to be targeted.

#### Wildlife Surveys

Assist DWR in wildlife surveys and bird counts on several local rivers, reservoirs and streams. High school age groups preferred.

### Salt Lake City Area

#### \*Bat Boxes

Help provide artificial roost sites for bats by building and placing boxes. Contact the Project WILD Office (530-1269) for box plans and for more information on where and how to place boxes.

#### \*Bird Feeders

Construct and place bird feeders at home or on school grounds. Contact the Project WILD Office for plans for constructing bird feeders.

#### School Yard Natural Areas

Plant a section of your school grounds with native plants to attract birds and other wildlife. Contact the Project WILD office for a list of native plants.

*continued on next page*

## *Earth Day 1990*

### *Earth Day Projects, continued*

#### **Central Region**

Contact Ray Remund, Division of Wildlife Resources, at 489-5678, for more information. Other Earth Day project possibilities will be identified as spring approaches.

#### **Revegetation Project**

Assist the U.S. Forest Service and DWR in planting seedlings and seeds at the mouth of Mapleton Canyon. This is a soil stabilization priority with wildlife forage a secondary purpose.

#### **Plantings**

DWR intends to do plantings on state property at Mount Nebo for wildlife forage. Bitterbrush seedlings will be planted if stock is available.

#### **Spring "House Cleaning"**

Burraston Ponds have been targeted for some much needed sprucing up.

#### **Southern Region**

#### **Panguitch Lake Clean-up**

Spring clean-up, anytime during Earth Week; perfect project for Garfield Co. 4th and 5th graders. Contact Garth Carter or Norm McKee, Division of Wildlife Resources, at 586-2455.

#### **DWR Site Improvement**

DWR would like to coordinate with Iron Co. Schools on developing a nature study site on a parcel of DWR land in Parowan Canyon near Parowan. Plans include building a nature trail, planting trees and constructing interpretive signs. A field work day is planned for April 26 beginning at 9 a.m. Contact Garth Carter, DWR, at 586-2455, or Kevin Porter, Principal, Parowan Elementary, at 477-3513.

#### **Water Development Project**

Kane Co. Schools have the opportunity to assist DWR by raising funds for building a deer guzzler near Kanab. About \$2500 is needed. The class or group raising the most money would be brought out

to the site to assist in its construction. A sign would also be constructed recognizing the class for its contribution. Contact Garth Carter, DWR, at 586-2455, or Nils Bayles, Kane Co. School District, at 644-2555.

#### **\*Charge-Up-A-Tortoise**

Many of the radios on currently radio-monitored desert tortoises need re-charging. The cost for this is \$125. In exchange for a contribution to re-charge a radio, DWR personnel will provide information to a class or school on the movements of their particular tortoise. Contact Garth Carter or Mike Coffeen, DWR, at 586-2455.

#### **Southeastern Region**

#### **Plantings**

DWR needs assistance planting willows on Willow Creek in Price Canyon. Contact Larry Dalton, DWR, at 637-3310.

#### **Bluebird and Kestrel Nest Boxes**

Contact Bill Bates, DWR, at 637-3310, for construction plans and information on placing boxes.



*Earth Day 1990*

## **Thanks, Mrs. Kimball and Uintah Elementary**

Over a year has passed since Donna Kimball and her 5th grade students began working on "Pollution Solutions." Now, Uintah Elementary School, at 6115 S. 2250 E., Ogden 84403, is the site of Weber County's first and only community deposit for recyclable materials.

The huge blue recycling bins stand by the entrance of the parking lot as bright reminders of a grass roots project which began early last year. At that time the students were studying the environment as part of their social studies and science courses. Learning about the environment soon led into actually doing something for the environment. The students began circulating petitions and educational brochures to inform the public about recycling and using environmentally safe products. They wrote letters to legislators and made presentations to the Governor's Solid Waste Task Force. Then they started to develop a recycling plan for their school. Their plan became a reality in January 1990!

Clearly labeled and monitored often by students, the new bins collect aluminum, plastic, glass, newspaper and cardboard. Paper Stock Co. of Salt Lake City hauls the material away to be recycled, and the school receives a share of the profit.

Donna, a Project WILD teacher since 1984, and her students continue to talk to civic groups and educate the community about recycling. Utah's Project WILD applauds all their hard work and dedication! These young people are planning for a future environment which is healthy and safe for all of its inhabitants.

For more information about educational materials related to recycling or how to establish a recycling center at your school, contact Donna Kimball (479-5410).

### ***Recyclable Facts***

Each 4-foot stack of newspaper that is recycled saves the equivalent of a 40-foot pine tree.

Making paper from scrap instead of wood pulp cuts energy and water use by 50 percent.

If the United States recycled just half of the newsprint it consumes every year, it would divert 6 million tons of material from landfills -- enough to fill up 3200 garbage trucks each day.

Every glass bottle that is recycled saves enough energy to light a 100-watt bulb for 4 hours.

A recycled aluminum can is back on the supermarket shelf in 6 weeks and saves the equivalent of one cup of gasoline in energy costs. Making new aluminum from used cans saves 95 percent of the energy required to produce aluminum from bauxite.

Each year, U.S. residents throw away: enough aluminum to rebuild the fleet of a major airline 71 times, enough steel to reconstruct Manhattan, and enough wood and paper to heat 5 million homes for 200 years.

It costs \$4 billion per year to dispose of America's trash.

*(Fairfax County Department of Public Works, Division of Solid Waste; reprinted from Science Teacher, Feb., 1990)*



# 101 THINGS YOU CAN DO TO HELP SAVE ANIMALS AND ANIMAL HABITATS

*(from Oregon's Clearing magazine; developed by the Washington Park Zoo in conjunction with: Metro Recycling Information Center, Oregon Department of Environmental Quality, OSU Extension Energy Program and the Portland Audubon Society)*

## In your home...

- Recycle everything you can: newspapers, cans, glass, aluminum foil and pans, motor oil, scrap metal, etc.
- Investigate local recycling centers that take items like scrap paper, plastics, appliances, etc.
- Save your kitchen scraps for the compost pile.
- Try to use phosphate-free laundry and dish soaps.
- Avoid the use of household pesticides. Flyswatters work very well.
- Clean your windows with vinegar and water instead of chemical products.
- Use cold water in the washer unless it's necessary to use warm or hot.
- Use washable rags, not paper towels, for cleaning up spills and other household chores.
- Crumpled-up newspapers are great for washing windows.
- Use cloth diapers. The plastic in disposable diapers doesn't break down in landfills.
- Use cloth, not paper, napkins.
- Don't put hazardous substances down your drain or in your trash (paint thinner, furniture polish, etc.) Dispose of them properly.
- Don't use electrical appliances for things you can easily do by hand.
- Re-use brown paper bags to line your trash can instead of plastic liners. Re-use bread bags, butter tubs, etc.
- Use re-usable containers to store foods...not plastic wraps and foil.
- Write to companies that send unwanted junk mail...ask them to take you off their list.
- Save your coat hangers and return them to the cleaners.
- Take unwanted, re-usable items to a charitable organization or thrift shop.
- Don't leave water running needlessly.
- Install a water-saving shower head.
- Set your water heater at 130 degrees.
- Insulate your water heater. Contact your utility company to see what they have available.
- Turn the heat down and wear a sweater.
- Lower your house temperature by one degree per hour for every hour you'll be away or asleep.
- Turn the lights off when you're out of the room. Ditto with the TV.
- Get a free energy audit from your utility company.
- Burn only seasoned wood in your stove or fireplace.

## In your yard...

- Start a compost pile.
- Plant shrubs and trees in your backyard that provide food and shelter for birds and other creatures.
- Feed the birds.
- Put up bird houses and baths.
- Pull weeds instead of using herbicides.
- Learn about natural insect controls as alternatives to pesticides.
- Landscape with plants that aren't prone to insect and fungus problems.
- Ignore caterpillars and most native leaf chewing insects. Let birds and insect predators take care of them.
- Use beer traps for slugs instead of baiting with poisons.
- Use organic fertilizers...good ol' manure helps condition your soil and fertilizes at the same time.
- If you use pesticides, herbicides or fungicides, don't throw leftovers in the trash, down your drain or into a storm sewer; dispose of them properly.
- Compost your leaves and yard debris or take them to a yard debris recycler. Burning them creates air pollution and putting them out with the trash is a waste of landfill space.
- Use mulch to conserve water in your garden.
- Plant things that don't require so much water.
- Take extra plastic and rubber pots back to the nursery.
- Large expanses of lawn are not good habitat for other creatures, plus they usually must be maintained with chemicals and extensive watering. Dig up some of your grass and plant native shrubs or trees instead.
- Plant short, dense shrubs close to your home's foundation to help insulate against cold.

## On vacation...

- Turn the heat down and turn off the water heater before you go.
- Carry re-usable cups, dishes and flatware.
- Make sure your plastic trash doesn't end up in the ocean.
- Don't pick flowers or collect wild creatures for

*continued on next page*

### **In your car...**

- Drive sensibly...don't waste gas.
- Keep your car tuned up.
- Car pool.
- Use public transit.
- Ride your bike or walk instead.
- Buy a more gas efficient car.
- Recycle your engine oil.
- Keep your tires properly inflated to save gas.
- Recycle your old tires.
- Keep your wheels in alignment to save your tires.
- Don't litter.

### **At your business...**

- Start an office recycling program for office and computer paper, cardboard, etc.
- Use scrap paper for informal notes.
- Print things on recycled paper.
- Print or copy on both sides of the paper.
- Use smaller paper for smaller memos.
- Re-use manila envelopes and file folders.
- Hide the throw-away cups and train people to bring their mugs to meetings.
- Route things around the office or post non-urgent communications rather than making multiple copies.
- Use the stairs instead of the elevator.
- Office building landscape doesn't have to be sterile lawns and bedding plants. Plant trees and shrubs the birds will like.
- Put a bird feeder outside your office window. It's a great conversation piece.

### **When you're shopping...**

- Don't buy food or household products in plastic or styrofoam containers if there's an alternative (milk and egg cartons, vegetable oils, butter tubs, etc.) They can't be recycled and don't break down in the environment.
- Don't buy "disposable" anything. Paper plates and towels, styrofoam cups, etc. are extravagant wastes of the world's resources.
- If you must buy disposables...buy paper products rather than plastics, rather than styrofoam. The manufacture of styrofoam depletes the ozone layer.
- Buy durable products and keep them a little longer. Cheap furniture, clothes and appliances often have short life spans.
- Check the energy rating on major appliances you buy.

- Read labels and buy the least toxic product available for cleaning, pest control and other jobs.
- Put your parcels into one big sack instead of collecting several small ones.
- Don't buy things with excess packaging (individually wrapped cheese slices, apples on a paper tray wrapped with cellophane, etc.).
- Buy in bulk: reduce pollution that comes from the manufacture and disposal of many small packages.
- Ask questions...don't buy products that are hazardous to the environment or that were manufactured at the expense of important animal habitat.
- Buy locally grown food and locally made products when possible.
- Don't buy products that come from endangered animals.
- Don't keep "exotic pets".

### **Personal efforts...**

- Join a conservation organization.
- Volunteer your time to conservation projects.
- Give money to worthy conservation and environmental causes.
- Check your lifestyle...think about the effects of your daily actions on the environment.
- Contribute to the Nongame Wildlife Fund by using the checkoff on your state income tax form.
- Vote for candidates that share your sentiments.
- Read books and articles on wildlife and environmental issues.
- Watch nature programs on TV.
- Subscribe to conservation or environmental publications; purchase them as gifts for others.

### **Spread the word...**

- Convert by example...encourage other people to save resources, too.
- Tease, cajole, persuade or shame your family, friends and neighbors into recycling, being energy conscious, etc.
- Complain to merchants about excess packaging, use of plastics, etc. Write letters to companies. Patronize merchants who are environmentally aware.
- Write your legislators when you have an opinion about pending legislation on environmental, land use and other issues.
- Teach children and adults to respect nature and the environment. Go on a hike, plant a tree, build a bird house, or buy a nature book or subscription to a wildlife magazine.



*For information about Earth Day Utah 1990:*

**CALL 1-800-637-1919**

Within the state of Utah, we are fortunate to have the Earth Day Utah 1990 Steering Committee planning a full slate of activities to focus on Earth Day.

The major goals of Earth Day Utah are to increase public awareness of environmental issues, support efforts to improve air quality, encourage the development and use of public transportation, promote local tree-planting efforts, and to stimulate recycling activities while encouraging the reduction of solid waste. Currently, many activities are already organized for the Salt Lake area, including a 5K race/walk, a recycling contest, public forums, workshops, concerts, tree-planting activities, an art exhibit with the theme "Earth Images" and an Earth Fair to be held April 21 and 22nd.

The Utah steering committee is actually a sub-committee of the Salt Lake City Mayor's Recycling Committee and is an affiliate of both the National and International Offices of Earth Day 1990. **This is one of the reasons they are able to offer to teachers two excellent packets of materials for developing Earth Day projects, programs and activities for classrooms and youth groups. One packet has been prepared by the national Earth Day group and contains their education curriculum. The second packet has been prepared especially for Utah teachers by the local Earth Day group and contains a wealth of valuable information, including resources available (both locally and nationally), suggested Earth Day activities, an art contest for elementary students and a contest for high school students writing public service announcements.**

You may obtain these two FREE educational packets as well as ask for information about any of the organized events for Earth Day Utah by calling the phone number at the top of this article.

*Earth Day 1990*

## NATURAL RESOURCES

### **"Earth Day Every Day -- You Can Make A Difference!" is Theme for National Wildlife Week, April 22-28**

Free Wildlife Week teaching kits will be available in February and March through your school district or by writing the National Wildlife Federation, 1412 16th Street N.W., Washington, D.C. 20036-2266. These kits, designed for grades K-9, include a colorful poster of illustrated conservation facts with a time line of important environmental events on the back; a 16-picture poster of animals affected both positively and negatively by human activity; a 16-page educator's guide with background information and activities on habitats, pollution and energy; and an educational materials catalog.

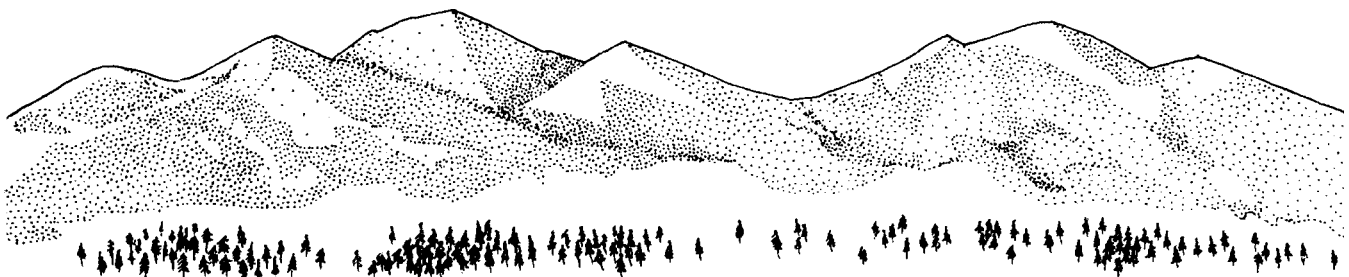
Personnel from the Division of Wildlife Resources are available for classroom presentations during National Wildlife Week. If it is not possible to arrange for a presentation, a slide program prepared by the National Wildlife Federation is available. To schedule a presentation or make arrangements for the slide program, contact the Information and Education Manager in your region or the Project WILD office (530-1269).

### **Wildlife Poster: "Discover Utah Wildlife"**

Our new poster with a bald eagle soaring through a sparkling blue sky is ideal for classroom use and is available free of charge at Division of Wildlife Resources offices.

### **Species Checklist: "Discover Utah Wildlife"**

A newly published free booklet listing over 600 species of wildlife found in Utah is now available at Division of Wildlife Resources offices. Call the Project Wild office if you would like to have one mailed to you.



### **There Really Are 50 Simple Things You Can Do To Save The Earth**

Here's a little book that is taking the world by storm. Dedicated to future generations, this \$5 guide to protecting the earth offers a multitude of easily adopted practices which can make our planet more livable. It covers the basics -- like how to avoid or reduce using plastics, wasting water, or improperly disposing of motor oil and hazardous paint products. You can even learn how to plant for wildlife in your own backyard or set up a recycling program. For each "simple idea," the authors list one or more sources for further information.

Because the author only allows the book to be printed on recycled paper (apparently a scarce commodity in bulk quantity) and sales have exceeded all expectations (first printing of 26,000 copies sold out in days), you may have to check on its availability at local bookstores. You may order directly from the publisher with a check for \$6 (which includes shipping costs) sent to Earthworks Press, Box 25, 1400 Shattuck Avenue, Berkeley, CA 94709.

## *Earth Day 1990 Activity*

# **EARTH -- A Finite Planet**

(by Audrey Brainard, *Teacher's PET Term Paper*, Winter 1988)

**Background:** Protecting our land resources is very important. Advanced agricultural technology has enabled the world to feed many of its people, but the population continues to expand causing each person's portion to become smaller and smaller. World human population in 1970 was 3.72 billion. Projected population for 1990 is 5.32 billion.

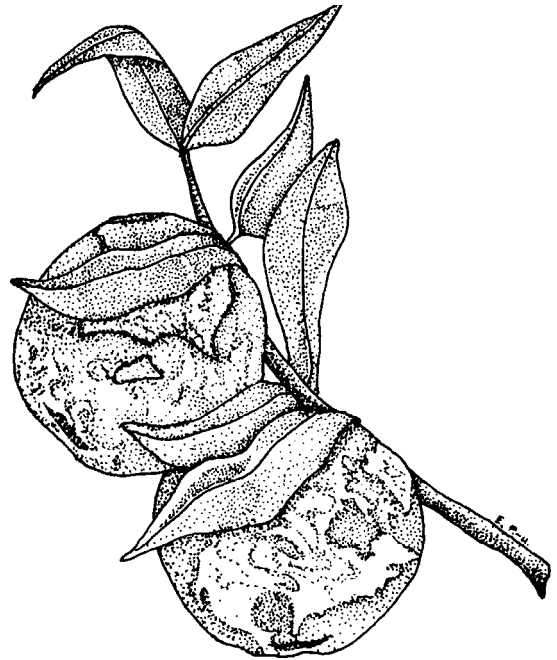
**Materials:** One large apple, sharp knife

**Procedure:** Consider that the apple represents earth. Slice the apple into quarters, setting aside three. The  $\frac{3}{4}$  represent the oceans of the world. The lone  $\frac{1}{4}$  represents earth's land area.

Slice the land representative in half and set aside one of the pieces. The portion set aside represents the land area that is inhospitable to people (polar regions, deserts, swamps, high or rocky mountains). The remaining  $\frac{1}{8}$  is the land where people live, but not necessarily where they grow the foods they need for life.

Slice the remaining  $\frac{1}{8}$  piece into 4 sections and set aside three. The  $\frac{3}{32}$  represent the areas too rocky, wet, cold, steep, hot, or where the soil is too poor to produce food. These pieces also contain the cities, malls, highways, schools, parks, factories, and other places where people live, but cannot grow food.

Carefully peel the remaining  $\frac{1}{32}$  slice of the earth. This tiny bit of peel represents the very thin surface -- less than five feet deep -- of the earth's crust upon which humans depend for agriculture.



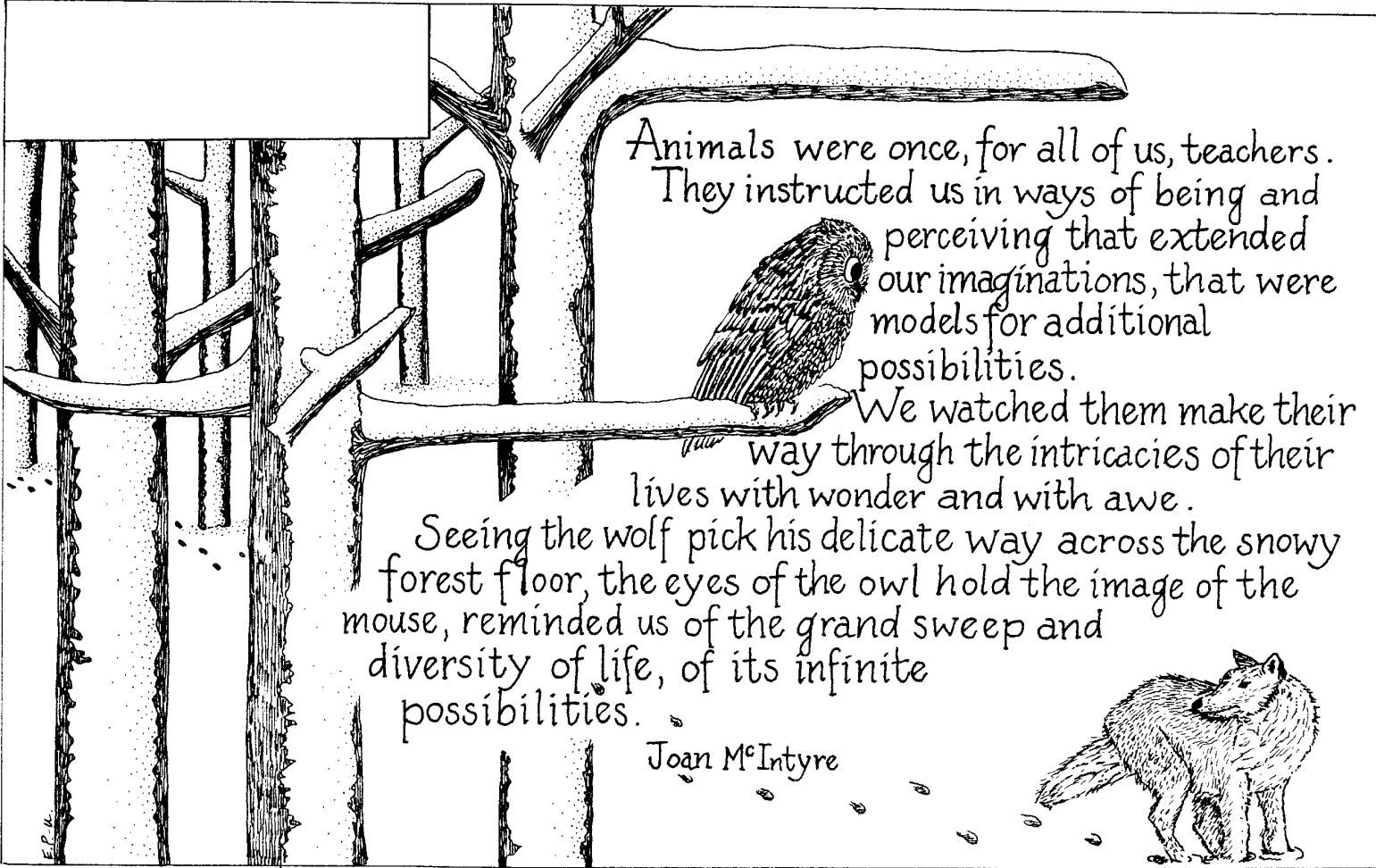
**Our planet is finite. We suggest following up this activity by asking your students the following questions:**

**About what fraction of the earth is represented by the remaining thin peel?**

**What factors affect the continued availability of quality living space?**

**What can you do to help protect at least one environment close to your home? One environment somewhere far from your home?**

**How could your actions be adopted by other individuals locally? Worldwide?**



Animals were once, for all of us, teachers.  
They instructed us in ways of being and  
perceiving that extended  
our imaginations, that were  
models for additional  
possibilities.

We watched them make their  
way through the intricacies of their  
lives with wonder and with awe.

Seeing the wolf pick his delicate way across the snowy  
forest floor, the eyes of the owl hold the image of the  
mouse, reminded us of the grand sweep and  
diversity of life, of its infinite  
possibilities.

Joan McIntyre